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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,780	03/30/2001	Net Insight	10806-006	5938
22852	7590	01/26/2005	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			HOANG, THAI D	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application N .</b>	<b>Applicant(s)</b>	
	09/806,780	INSIGHT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thai D Hoang	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondenc address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to because figure 3 lack descriptive legends for elements shown in the figure. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 5-15, 20-29 and 33-35 are objected to under 37 CFR 1.75(c) as being in improper form because multiple dependent claims. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Art Unit: 2667

Claim 4 is objected to because of the following informalities: the abbreviation C4v represents control signal of a DTM channel (specification page 12, line 35). It does not represent DTM channel as recited in claim 4, line 3.

Claim 35, lines 5-6, the statements "said set of DTM subchannels" found no basic. Previous paragraphs did not define subchannels; therefore, the word, "said" on line 5, is grammatically incorrect. Also, a word "wherein" on line 2 should be deleted because it is recited twice.

Appropriate correction is required.

#### ***Specification***

The disclosure is objected to because of the following informalities:

Figure 2 does not show any link L3, bit stream L2 and L3 as disclosed on page 12, line 27 and page 13, line 16 respectively.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15 and 35 recite "a first network operator" and "a second network operator" those are not clear, because previous claims only recite "a first node" and "a

second node". It is confusing what is meant by "a first network operator" and "a second network operator".

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-11 and 13-35 are rejected under 35 U.S.C. 102(e) as being unpatentable by Bohm et al, Us Patent No. 5,982,780, hereafter referred to as Bohm.

Regarding claims 1, 4, 16 and 19, Bohm discloses a method and system called resource management scheme and arrangement. Bohm teaches the system uses Dynamic synchronous transfer mode (DTM). Bohm discloses the system establishes a channel from a switching node to another switching node (col. 7, line 50 - col. 8, line 2). Also, Bohm teaches a network class is optimized for its particular traffic and applications, for example, cable television networks use unidirectional broadcast

networks where the capacity is divided into fixed-sized sub-channels carrying video. It indicates that there is a plurality of sub-channels in a TV channel (col. 2, lines 58-61).

Regarding claims 2-3, 17-18 and 31-32, Bohm teaches slots in a DTM channel are divided into two groups, control slots and data slots, and intermediate node not participating in control signal; abstract, col. 4, lines 38-44 and 54-56, col. 6, lines 26-28, col. 24, lines 3-4 and 43-44.

Regarding claims 5-6 (assumed depend on claim 1) and 20-21 (assumed depend on claim 16), Bohm teaches that the system operates in both unicast (point-to-point) and multicast (point-to-multiple points) mode; col. 7, lines 60-64, col. 8, lines 23-26

Regarding claims 7-8 (assumed depend on claim 1) and 22-23 (assumed depend on claim 16), Bohm teaches that a multicast channel can easily be extended to span over a plurality of nodes; col. 8, lines 26-29.

Regarding claims 9-11 (assumed depend on claim 1) and 24-27 (assumed depend on claim 16), Bohm discloses every node in the system maintains a status table that contains information about status of the slots in other nodes, col. 6, lines 54-56. In addition, Bohm discloses an intermediate node can switch data slots between two buses base on status table of the slots, col. 11, lines 39-42. Moreover, Bohm discloses methods for mapping time slots between DTM channels in figures 11-12 and 23-28.

Regarding claims 13-14 and 28-29, Bohm teaches that the system dynamically allocates time slots (resource) for each DTM channel based on demand, col. 4, lines 29-32, col. 6, lines 36-39, col.11, lines 4-7. Therefore, when the total requested time slots

of DTM channels is changed, the bandwidth allocated for each DTM channel will be changed.

Regarding claims 30 and 33, each switching node in the network disclosed by Bohm comprises a plurality of line card interfaces. It transmits and receives data to and from other switching nodes in the network by channels and links. In figure 3, Bohm discloses a DTM channel is established for transmitting control signal and data from a sender to one or more receivers through switching nodes. Based on time slots allocated for each receiver, the switching at the receiver side establishes one or more DTM channels to deliver data to each receiver through interfaces and links, fig. 3, col. 6, lines 19-37, col. 7, line 53-col. 8, line 4, col. 11, lines 34-42. Moreover, Bohm discloses methods for mapping time slots between DTM channels in figures 11-12 and 23-28.

Regarding claim 34 (assumed depends on claim 30), Bohm teaches the data slots are allocated to the node according to some predefined distribution and every node owns a portion of data slots of a time frame, col. 6, lines 34-37. Also, Bohm discloses the time slots are multiplexed in a time domain, col. 6, line 22-24 and col. 11, line 45.

Regarding claims 15 (assumed depends on claim 1) and 35 (assumed depends on claim 30), as best understood, Bohm discloses that each node along a path creates a channel and allocates slots for transmission data; col. 7, line 66 – col. 8, line 4 and col. 11, lines 39-41.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bohm et al as shown above.

Regarding claim 12, Bohm does not explicitly disclose the data is encrypted. However, encrypting method is well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply encrypting method into the Bohm's system in order to secure the data transmission in the Network.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to the application:

US Patent No. 6,504,853 B1, Lindgren et al discloses "Reallocation procedure."

US Patent No. 5,838,687 A, Ramfelt discloses "Slot reuse method and arrangement."

The following publications are cited to further show the state of the art with respect to the application:



Yamanaka, N.; Shiimoto, K.; "DTM: new dynamic transfer mode using dynamically assigned short-hold time-slot relay"; Global Telecommunications Conference on 8-12 Nov. 1998. The Bridge to Global Integration; IEEE, Vol. 1, pages: 375 – 380.

Barenco, C.J.; Salona, A.A.; Moreno, J.I.; "An architecture of QoS services for a core Internet network over DTM"; Universal Multiservice Networks, 2000. ECUMN 2000. 1st European Conference on 2-4 Oct. 2000; pages: 351 – 359.


Antal, C.; Biro, J.; Henk, T.; Matefi, G.; "Performance evaluation of a time division multiplexing method applicable for dynamic transfer mode networks"; Computers and Communications, 2000. Fifth IEEE Symposium on 3-6 July 2000; pages 34–39.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-18:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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